JS 10/21/21
RJA 1/7/22

Ecotox Report for Case # P-18-0107

General

[redacted]

Report Status: Complete
Status Date: 02/26/2019
CRSS Date: 02/12/2018
SAT Date: 02/13/2018
SAT Chair: Doritza Pagan-Rodriguez
Consolidated PMN: N
Consolidated Set:
Ecotox Related Cases:
Health Related Cases:
Submitter: Lanxess Corporation
CAS Number: [redacted]
Chemical Name: [redacted]
Use: [redacted]
Trade Name: Stabaxol P 110
PV-max(kg/yr): [redacted]
Ecotox Assessor: Wright, Tracy

Fate Summary Statement

Fate Summary Statement: P-18-0107

FATE: MW = [redacted] with [redacted] < 500 and [redacted] < 1000
Solid with
MP = 60-90 °C (M)
S = Negl.
VP < 1.0E-6 torr at 25 °C (E)

BP > 400 °C (E)
H < 1.00E-8 (E)
POTW removal (%) = 90
via sorption

Time for complete ultimate aerobic biodeg > mo

Sorption to soils/sediments = v.strong
PBT Potential: P3B1

*CEB FATE: Migration to ground water = negl

PMN Material:

Overall wastewater treatment removal is 90% via sorption.

Sorption to sludge is strong based on high molecular volume.
Air
Stripping (Volatilization to air) is negligible based on high molecular volume.
Removal by biodegradation in wastewater treatment is
negligible based on high molecular volume.
The aerobic aquatic
biodegradation half-life is greater than months based on high molecular volume.
The anaerobic aquatic biodegradation half-life is greater
than months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life is projected to be greater than or equal to the aerobic biodegradation half-life.
Sorption to soil and sediment is
very strong based on high molecular volume.
Migration to groundwater
is negligible based on high molecular volume.
PMN Material:

High Persistence (P3) is based on the estimated anaerobic
biodegradation half-life and high molecular volume.
Low
Bioaccumulation potential (B1) is based on high molecular volume.

Bioconcentration/Bioaccumulation factor to be put into E-Fast:
N/A.

Physical Chemical Information

Molecular Weight: [redacted]

Wt% < 500: [redacted] **Wt% < 1000:** [redacted]

Physical State - Neat: Solid

Melting Point (est):

Melting Point:	60.00 - 90.00		
MP (EPI):			
Vapor Pressure:		**Vapor Pressure (est):**	<0.000001
VP (EPI):			
Water Solubility:		**Water Solubility (est):**	<0.000001
Water Solubility (EPI):			
Henry's Law::			
Log Koc:		**Log Koc (EPI):**	
Log Kow:		**Log Kow (EPI):**	
Log Kow Comment:			

SAT
Concern Level

Ecotox Rating (1):	1
Ecotox Rating Comment (1):	
Ecotox Rating (2):	
Ecotox Rating Comment (2):	
Ecotox Route of Exposure:	No releases to water

Ecotox Comments

Exposure Based Review (Eco):	N
Ecotox Comments:	
Exposure Based Testing:	

PBT Ratings

Persistence	Bioaccumulation	Toxicity	Comments
3	1	2	

Eco-Toxicity Comment:

Fate Ratings

Removal in WWT/POTW (Overall):	90					
Condition	**Rating Values**	**Rating Description**				**Comment**
		1	**2**	**3**	**4**	
Fish BCF:						
Log Fish BCF:						
WWT/POTW Sorption:	3	Low	Moderate	Strong	V. Strong	
WWT/POTW Stripping:	4	Extensive	Moderate	Low	Negligible	
Biodegradation Removal:	4	Unknown	High	Moderate	Negligible	
Biodegradation Destruction:		Unknown	Complete	Partial	—	
Aerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	
Aerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Hydrolysis (t1/2 at pH 7,25C) A:		<= Minutes	Hours	Days	>= Months	
Hydrolysis (t1/2 at pH 7,25C) B:		<= Minutes	Hours	Days	>= Months	
Sorption to Soils/Sediments:	1	V. Strong	Strong	Moderate	Low	
Migration to Ground Water:	1	Negligible	Slow	Moderate	Rapid	
Photolysis A, Direct:		Negligible	Slow	Moderate	Rapid	
Photolysis B, Indirect:		Negligible	Slow	Moderate	Rapid	
		Negligible	Slow	Moderate	Rapid	

Removal in WWT/POTW (Overall):	90					
Condition	**Rating Values**	**1**	**2**	**3**	**4**	**Comment**
Atmospheric Ox A, OH:						
Atmospheric Ox B, O3:		Negligible	Slow	Moderate	Rapid	

Bio Comments: PMN Material:
Overall wastewater treatment removal is 90% via sorption.

Sorption to sludge is strong based on high molecular volume.
Air Stripping (Volatilization to air) is negligible based on high molecular volume.
Removal by biodegradation in wastewater treatment is negligible based on high molecular volume.
The aerobic aquatic biodegradation half-life is greater than months based on high molecular volume.
The anaerobic aquatic biodegradation half-life is greater than months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life is projected to be greater than or equal to the aerobic biodegradation half-life.
Sorption to soil and sediment is very strong based on high molecular volume.
Migration to groundwater is negligible based on high molecular volume.
PMN Material:

High Persistence (P3) is based on the estimated anaerobic biodegradation half-life and high molecular volume.
Low Bioaccumulation potential (B1) is based on high molecular volume.

Bioconcentration/Bioaccumulation factor to be put into E-Fast:
N/A.

Fate Comments: PMN Material:
Overall wastewater treatment removal is 90% via sorption.
Sorption to sludge is strong based on high molecular volume.
Air Stripping (Volatilization to air) is negligible based on high molecular volume.

Removal in WWT/POTW (Overall): Condition	90 Rating Values	Rating Description 1	2	3	4	Comment
		Removal by biodegradation in wastewater treatment is negligible based on high molecular volume. The aerobic aquatic biodegradation half-life is greater than months based on high molecular volume. The anaerobic aquatic biodegradation half-life is greater than months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life is projected to be greater than or equal to the aerobic biodegradation half-life. Sorption to soil and sediment is very strong based on high molecular volume. Migration to groundwater is negligible based on high molecular volume. PMN Material: High Persistence (P3) is based on the estimated anaerobic biodegradation half-life and high molecular volume. Low Bioaccumulation potential (B1) is based on high molecular volume. Bioconcentration/Bioaccumulation factor to be put into E-Fast: N/A.				

Ecotoxicity Values

Test organism	Test Type	Test Endpoint	Predicted	Experimental	Comments
Fish	96-h	LC50	*		Toxicity predictions are based on the negligible water solubility of P-18-0107 (insoluble nonionic polymer); * = no effects at saturation.
Daphnid	48-h	LC50	*		Toxicity predictions

Test organism	Test Type	Test Endpoint	Predicted	Experimental	Comments
					are based on the negligible water solubility of P-18-0107 (insoluble nonionic polymer); * = no effects at saturation.
Green Algae	96-h	EC50	*		Toxicity predictions are based on the negligible water solubility of P-18-0107 (insoluble nonionic polymer); * = no effects at saturation.
Fish	-	Chronic Value	*		Toxicity predictions are based on the negligible water solubility of P-18-0107 (insoluble nonionic polymer); * = no effects at saturation.
Daphnid	-	Chronic Value	*		Toxicity predictions are based on the negligible water solubility of P-18-0107 (insoluble nonionic polymer); * = no effects at saturation.
Green Algae	-	Chronic Value	*		Toxicity predictions

Test organism	Test Type	Test Endpoint	Predicted	Experimental	Comments
					are based on the negligible water solubility of P-18-0107 (insoluble nonionic polymer); * = no effects at saturation.

Ecotox Value Comments: Toxicity predictions are based on the negligible water solubility of P-18-0107 (insoluble nonionic polymer); MW [redacted] with [redacted] <500 and [redacted]<1000; solid with a MP = 60-90C (M); S = negligible (P); effective concentrations based on 100% active ingredients and mean measured concentrations; hardness <150 mg/L as CaCO3; and TOC <2.0 mg/L.

Ecotox Factors

Factors	Most Sensitive Endpoint	Assessment Factor	CoC	Comment
Acute Aquatic (ppb):				Because hazards are not expected up to the water solubility limit, acute and chronic concentrations of concern are not identified.
Chronic Aquatic (ppb):				Because hazards are not expected up to the water solubility limit, acute and chronic concentrations of concern are not identified.

Factors	Values	Comments
SARs:	Nonionic Polymers	
SAR Class:	Nonionic Polymers-insoluble-[redacted]	
TSCA NCC Category?	None	

Recommended Testing:	

Ecotox Factors Environmental

Comments: Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risk because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA estimated environmental hazard of this new chemical substance using predictions based on the negligible water solubility of P-18-0107 (insoluble nonionic polymer). Acute and chronic toxicity values estimated for fish, aquatic invertebrates, and algae are all no effects at saturation. These toxicity values indicate that the new chemical substance is expected to have low environmental hazard. Because hazards are not expected up to the water solubility limit, acute and chronic concentrations of concern are not identified.

Environmental Risk:
Risks to the environment from acute and chronic exposure are not expected at any concentration of the new chemical substance soluble in the water (i.e., no effects at saturation).

Comments/Telephone Log

Artifact	Update/Upload Time
[redacted]	[redacted]